



Florida Power & Light Company, P. O. Box 14000, Juno Beach, FL 33408-0420

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September 19, 2001

Ms. Carol Hanlon
U.S. Department of Energy
Yucca Mountain Site Characterization Office (M/S #025)
P.O. Box 30307
North Las Vegas, Nevada 89036-0307

Re: Possible Site Recommendation for Yucca Mountain
66 Fed. Reg. 43850 (Aug. 21, 2001); 66 Fed. Reg. 45845 (Aug. 30, 2001)

Dear Ms. Hanlon:

Florida Power & Light Company (FPL), the licensee for the St. Lucie Nuclear Plant, Units 1 and 2, and the Turkey Point Nuclear Plant, Units 3 and 4, is pleased to provide the following comments to the Department of Energy (DOE) pursuant to the above-referenced Federal Register notices.

A safe and effective program and capability for the permanent disposal of used nuclear fuel is of vital importance to the continued long-term availability of electricity from environmentally clean nuclear plants. The continued availability of nuclear electric generating plants will remain of vital and strategic importance to the Nation's energy policies and energy independence for the foreseeable future. Further, the timely establishment of a repository to safely dispose of used nuclear fuel pursuant to the Nuclear Waste Policy Act (NWPA) may help to eliminate significant obstacles that have foreclosed consideration of new nuclear plants as a viable and beneficial alternative to address the Nation's continued growth in electrical demand.

FPL joins the Nuclear Energy Institute (NEI) in strongly supporting a prompt decision by DOE to recommend Yucca Mountain for development as a repository for commercial used nuclear fuel and high-level radioactive waste.

DOE has collected and published extensive and voluminous evidence, based on years of sound engineering and scientific analyses, in the *Yucca Mountain Preliminary Site Suitability Evaluation (PSSE)* along with the *Yucca Mountain Science and Engineering Report*, *Preliminary Preclosure Safety Assessment for Monitored Geologic Repository Site Recommendation*, *Total System Performance Assessment for the Site Recommendation*, *FY01 Supplemental Science and Performance Analyses* and other supporting reports and documents. This extensive body of scientific work clearly demonstrates that the development of Yucca Mountain as the Nation's used nuclear fuel repository will protect public and worker health and safety.

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FPL notes that as early as the 1950s scientists first reached widespread agreement that geologic disposal is the best method for long-term management of used nuclear fuel and high-level radioactive waste. The National Academy of Sciences reaffirmed this approach in 2001.

FPL has reviewed the PSSE and other supporting documentation provided by DOE. FPL agrees that DOE has employed evaluation methods that are consistent with methods used in safety analyses for NRC licensed nuclear facilities to assess the suitability of the site and facility during preclosure operations. DOE's analyses include appropriate engineering analysis of the facility's systems, structures and components and performance during categorized design basis events including natural occurrences such as earthquakes and tornadoes.

Similarly, FPL agrees that DOE's total system performance assessment (TSPA) provides a technically comprehensive and defensible approach to support DOE's assessment of site suitability. This approach is backed by substantial scientific and engineering investigation and conservatively models both the natural and engineered barriers over the 10,000 year performance period, provides in-depth analysis of earthquakes and transport pathways, and utilizes defense-in-depth approaches. DOE has looked for and evaluated natural analogues to support its long-term model projections regarding how the Yucca Mountain system will behave over the performance period. FPL agrees with DOE's conclusion that doses to the public will remain well below the applicable EPA and NRC radiation protection standards, including individual, intrusion and groundwater protection.

FPL further notes that the DOE has been studying site specific geologic disposal at Yucca Mountain for some 20 or more years and that since 1982, electric customers, in general, have paid \$17 billion and FPL customers, in particular, have paid more than \$443 million into the Nuclear Waste Fund towards the development of a repository and process to provide safe disposal of commercial used nuclear fuel. Under the NWPA, and pursuant to contracts with FPL and other electric utilities, DOE was required to begin accepting used fuel in 1998, a deadline that was not met.¹ With extensive scientific evidence that has been amassed by DOE demonstrating the suitability of Yucca Mountain, the Secretary should move forward expeditiously with a recommendation to the President and to continue through the remaining steps in the process for providing a repository.

FPL's responses to the specific questions raised in your August 27th letter to Mr. Lew Hay, III, President and Chief Executive Officer of FPL Group, Inc., follow:

Please provide your views concerning whether the Yucca Mountain Preliminary Site Suitability Evaluation (PSSE) and other scientific documents produced by the Department provide an adequate basis for finding that the Yucca Mountain site is suitable for development of a repository. If you believe that certain aspects of the PSSE are inadequate,

¹ A series of judicial decisions has conclusively established the binding nature of the NWPA and that DOE is in breach of its obligations under the NWPA for failing to begin acceptance and disposal of used nuclear fuel by January 31, 1998. DOE's breach of its obligation to begin acceptance of FPL's used nuclear fuel has caused and will cause FPL to incur significant costs to manage the used nuclear fuel. FPL is currently seeking to recover these damages in its lawsuit currently pending before the U.S. Court of Federal Claims.

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please detail the basis for this belief and indicate how the documentation might be made adequate with respect to these aspects.

The Yucca Mountain Preliminary Site Suitability Evaluation and other scientific documents provide an adequate basis for finding that the Yucca Mountain site is suitable for development as the nation's repository for high-level radioactive waste and spent nuclear fuel. The other reports which include the *Yucca Mountain Science and Engineering Report*, *Preliminary Preclosure Safety Assessment for Monitored Geologic Repository Site Recommendation*, *Total System Performance Assessment for the Site Recommendation*, *FY01 Supplemental Science and Performance Analyses* and other supporting reports and documents contain an unprecedented amount of engineering and scientific data based on some 20 or more years of experiments, tests, studies and analyses. This voluminous body of work demonstrates that Yucca Mountain is a suitable site for the repository and that it will protect public and worker health and safety during the site's preclosure and post closure periods.

If the Secretary determines that the scientific analysis indicates that the Yucca Mountain site is likely to meet the applicable radiation protection standards established by the Environmental Protection Agency and Nuclear Regulatory Commission, do you believe that the Secretary should proceed to recommend the site to the President at this time? If not, please explain.

If the Secretary determines that the scientific analysis indicates that the Yucca Mountain site is likely to meet the applicable EPA and NRC radiation protection standards during both the preclosure and post closure periods, as indicated by the PSSE and other supporting documents, then the site will be protective of public and worker health and safety and the Secretary should promptly proceed to recommend to the President that the Yucca Mountain site is suitable to be the nation's geologic repository for high-level radioactive waste and spent nuclear fuel.

Are there any reasons that you believe should prevent the President from concluding that the Yucca Mountain site is qualified for the preparation and submission of a construction license application to the Nuclear Regulatory Commission?

Based on the sound engineering and scientific data and analyses collected over the 20 years of studies at the Yucca Mountain site and published in several DOE reports, along with the preliminary assessment and conclusion that Yucca Mountain is suitable to be the nation's repository for high-level radioactive waste and spent nuclear fuel and that it will meet the EPA and proposed NRC radiation standards, FPL does not believe there is any reason to prevent the President from concluding that the Yucca Mountain site is qualified for the preparation and submission of a construction license application to the Nuclear Regulatory Commission.

If you believe that the Secretary should not proceed with a recommendation to develop a repository at Yucca Mountain, what mechanism should be utilized to meet the Department's legal obligation to begin accepting spent nuclear fuel and high-level radioactive waste?

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The engineering and scientific data and analyses presented in DOE's documents and reports demonstrate that Yucca Mountain is suitable to be the repository and that the Secretary should promptly proceed with a recommendation to develop the repository at Yucca Mountain. FPL notes a series of judicial decisions have conclusively established that DOE is in breach of its legal obligation to begin accepting used nuclear fuel from commercial nuclear reactors beginning on January 31, 1998. These decisions have also established that DOE's obligation to begin acceptance of used nuclear fuel is not contingent on the existence of a repository. Therefore, FPL rejects the linkage between repository development and acceptance of used nuclear fuel that is implied in this question. DOE must satisfy its legal obligations to begin acceptance of used nuclear fuel for disposal regardless of the existence of a repository. DOE should immediately begin acceptance of used nuclear fuel for storage at existing DOE locations until the repository is licensed for acceptance of used fuel.

If you believe that the Secretary should not proceed with a recommendation to develop a repository at Yucca Mountain, what measures should the Nation consider for assuring safe disposal of spent nuclear fuel and high-level radioactive waste?

The engineering and scientific data and analyses presented in the DOE's documents and reports demonstrate that Yucca Mountain is suitable to be the repository and that the Secretary should promptly proceed with a recommendation to develop the repository at Yucca Mountain.

Please provide any other comments concerning any relevant aspect of the Yucca Mountain site for use as a repository, or that are otherwise relevant to the consideration of a possible recommendation by the Secretary.

DOE should begin implementation of effective measures and processes to ensure that DOE's acceptance of used fuel at the utilities' sites and transportation to the repository will proceed on a timely basis and will not further delay DOE's acceptance of commercial used fuel for disposal.

Sincerely yours,



J. A. Stall
Senior Vice President, Nuclear
and Chief Nuclear Officer